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XXVIII. *Account of several Quadrupeds from Hudson's Bay **, by Mr. John Reinhold Forster, F. R. S.

Read May 21, 1772.

1. ARCTIC FOX, Penn. Synopf. of Quadr. p. 155.
n. 113. *Canis Lagopus*, Linn.

Severn River.

A most beautiful specimen in its snowy winter furr; this animal seems to be lower on its legs than the common fox, and is prodigiously well secured against the intense cold of the climate, by the thickness and length of its hairs, which are at the same time as soft as silk.

* Among the occasional advantages, which the observations of the last Transit of Venus have procured, that of receiving useful informations from, and settling correspondencies in, several parts of the world, is not the least considerable. From the factory at Hudson's Bay, the Royal Society were favoured with a large collection of uncommon quadrupeds, birds, fishes, &c. together with some account of their names, place of abode, manner of life, uses, by Mr. Graham, a gentleman belonging to the settlement on Severn River; and the governors of the Hudson's Bay Company have most obligingly sent orders, that these communications should be from time to time continued. The descriptions contained in the following papers were prepared and given by Mr. Forster, before his departure on an expedition, which will probably open an ample field to the most important discoveries. M. M.

The

The account sent along with it from Severn River says, that these white foxes are silly, inoffensive animals; and are known to stand by, whilst a trap is baited for them, into which they put their heads immediately: they will, when pinched by hunger, devour those of their own kind, which are already caught in these traps. But the most curious circumstance is, their migration to the Northward and the Eastern coasts of the bay; for though a few of them are caught every year near York fort and Churchill river, yet, once in three or four years, they come in great numbers; and several hundred of their furs are sent to England in that plentiful seasons, which always begins in November, and ends in April. The specimen sent is full grown, and its furr quite in season.

2. LESSER OTTER. Penn. Syn. Quadr. p. 239. n. 174. *Mustela Lutreola* Linn. Syst. Nat. 66. Faun. Suec. N° 13.

Severn River.

I am still dubious, whether this animal ought to be looked upon as the same with the lesser otter of Europe and Asia; many circumstances seem to prove this identity; but some, such as the want of webs, which I could not discover between the toes, and the white spot on the neck, will not admit of it. I have, therefore, subjoined a description of this creature at the end of this article. The natives of Hudson's Bay call this quadruped

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Jackash;

Jackash ; Mr. Graham from Severn river says, that it harbours about creeks, and lives on fish, like the otter ; it travels very slowly, and has from four to seven young at a time ; in size it equals the marten ; its length is about 16 inches ; its whole body is covered with shining dark brown hairs, which lie very close, and seem perfectly convenient for an amphibious animal ; under these brown hairs the woolly hairs are tawny, the whole under-jaw is encompassed by a stripe of white hairs, and a little irregular spot of the same colour appears in the middle of the throat ; the feet are quite covered with hair to the very nails, which are small, five on each foot, and of a whitish semipellucid colour ; the tail is pretty well beset with hair, though not bushy, and much blacker than the rest of the body ; it is about half as long as the whole animal.

3. PINE MARTEN. Penn. Syn. Quad. p. 216. n. 155. *Mustela Martes (Abietum)*. Linn.
Severn River. Male and Female.

These seem to be a variety of the yellow-breasted marten, Br. Zool. I. 81. their colour, especially in the females, being much paler than that described in Mr. Pennant's works. The male is of a chesnut brown, the female a bright tawny yellow ; the former has here some dark brown hairs, the latter in the same manner has some bright bay hairs. They both have white cheeks, and white tips of the ears. Their furs are very full of hair,

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proper to preserve them from the cold. The tail in both sexes is bushy, and darker than the rest of the body; in the female indeed it is tawny, with a black tip; in both it is shorter than described by Mr. Pennant, Mr. Brisson, and others, and was perhaps mutilated. This species feeds on mice, rabbits, &c. though it will not touch a dead mouse which is put as a bait in a trap, and therefore the inhabitants are obliged to make use of a partridge's head, or the like, for that purpose. If pursued with noise, it immediately gets up into a tree. Some gentlemen have unsuccessfully attempted to tame these creatures, and those kept in cages with that view have been observed to be troubled with epileptick fits. Numbers of them are caught at Hudson's Bay in traps made of small sticks. They burrow under ground, and bring forth from four to seven young at a time.

4. STOAT AND ERMINE. Penn. Syn. Quad. p. 212.
n. 151. α . β . *Mustela Erminea*. Linn.

Severn River, Albany Fort.

One in the summer and another in the winter dress. The natives about Albany call them *Sic-cuse-sue*, but it is not known why they give them that name. They feed on mice, small birds, all sort of fish, flesh, and fowl.

5. COMMON WEESEL. Penn. Syn. Quad. p. 211.
n. 150. *Mustela nivalis*. Linn.

One in its winter dress, length 7 inches, tail about 1 inch, perhaps mutilated; it is quite white, but the

the coat is mixed here and there with a brownish hair, especially in the tail. Another in the summer coat, the same as our weasel.

6. SKUNK. Penn. Syn. Quadr. p. 233. n. 167.
Kalm's Travels, l. 273. tab. I.

It answers to Mr. Pennant's description, except that the white stripe on the head is not connected with that on the back, and that the brown area, which is left between the two white stripes on the back, is broader than he describes it.

7. CANADA PORCUPINE. Penn. Syn. Quadr. p. 266.
n. 196. *Hystrix dorsata*. Linn.

Severn River.

It agrees perfectly with the descriptions. These animals live among the pine trees, of which the bark is their food in winter, as willow tops and the like are in summer. They copulate in September, and bring forth only one young the first week in April. During winter they seldom travel above five hundred yards, so that one is always sure of finding a porcupine, as soon as one meets with a tree that has been fresh stripped of its bark. The longest quills of an old porcupine are about five inches long. The Europeans are very fond of the flesh of these animals, as it tastes, when roasted, exactly like that of a sucking pig. Their bones in winter have a greenish yellow colour, perhaps owing to their continually feeding on the bark of pine trees. It is known
that

that the bones of animals will become red by their feeding on madder.

8. BEAVER. Penn. Syn. Quadr. p. 255. n. 190.
Castor Fiber. Linn.

Churchill River, N^o 1.

A most beautiful specimen, in high preservation, and in full season; the furr is of a fine jetty black: the skull of another has likewise been sent. There is a great similarity in the conformation of the cutting teeth of this and the preceding quadruped (the porcupine); only the latter has them longer.

9. MUSK-BEAVER. Penn. Syn. Quadr. p. 259. n. 121. *Castor Zibethicus*. Linn.

Musquash. Severn River.

It frequents the plains, builds a house like the beaver, brings forth from five to seven young at a time, and feeds on poplars, willows, and grafs.

10. ALPINE HARE. Penn. Syn. Quadr. p. 249. n. 185. *Lepus timidus*. Linn. Kalm's Trav. into N. Amer. III. p. 59.

York Fort.

A fine specimen, in its compleat winter furr, being quite white, except the ears, which have black tips. It is much larger than the following animal. The common hare, *Penn. Syn. Quadr.* does not seem to be a native of America.

11. AMERICAN HARE, called Rabbit at Hudson's Bay. Kalm's Trav. into N. Amer. I. 105. II. 45. Severn and Churchill Rivers.

This species, which has been improperly called Rabbit, perhaps because it is less than the hare, is certainly new, and was never described before, except by Kalm in his travels through North America, Vol. I. 105. II. 45. The account he there gives corresponds with that of Mr. Graham, and with the specimen now in the Royal Society's collection. These animals are numerous at Hudson's Bay; they do not burrow under ground, but live summer and winter under windfalls and roots of trees. They do not migrate, but always keep about the same place, unless disturbed. They breed once or twice a year, and have five to seven young at a time: their weight is from 3 to $4\frac{1}{2}$ pounds. Their flesh is not so white and delicate as that of the common rabbit, but yet is good food in summer and winter. Great numbers of them are annually caught in the following manner: as they always are used to go one particular path, the English and natives lay young trees across it, forming a hedge, in which there is an opening for the creature to go through; in this place they fix a snare, made of brass wire, packthread, or the like, fastened with a slipping knot to a cross piece, the end being tied to an elastic pole; so that when the animal puts its head into

into the snare, the knot is drawn from the cross piece above, and the pole flying up, immediately suspends the animal in the air.

The proper characteristics of this species seem to be,

1. Its size, which is somewhat bigger than a rabbit's, but less than that of the Alpine or lesser hare.
2. The proportion of its limbs, its hind feet being longer in proportion to the body than those of the rabbit and the common hare. Vide the Hon. Daines Barrington's, V.P.R.S. letter to Dr. Watson on this new species of hare, in this volume, p. 6.

3. The tips of the ears and tail, which are constantly grey not black. Kalm's Trav. II. p 45. Perhaps some other characters might be ascertained, if the animal was brought over in its perfect summer furr; for all the specimens in the Royal Society's Museum are either entirely in their winter dress, or in a changing condition. Mr. Kalm mentions, that those which are found in New Jersey, where the climate is much more mild than at Hudson's Bay, keep the same grey colour both summer and winter; that in spring they breed in hollow trees, but in summer in the grass; that, when pursued, they immediately take refuge in hollow trees, whence they are driven out by crooked sticks, smok, &c.; lastly, that they do much mischief to cabbage fields and orchards, by eating the cabbage plants, and

the bark of the apple trees, feeding only by night, as the common hare.

12. QUEBEC MARMOT; Penn. Syn. Quadr. p. 270.
n. 199.

Churchill River, N° 5.

This creature is called a ground squirrel, at Churchill fort ; it differs much in size from that described in the Syn. Quadr. being much less than a rabbit, perhaps it is a young one. I took down the following description, as I did not find it exactly corresponding with that of the Canada marmot. The nose is blunt, the ears are short and roundish, the top of the head chesnut, back all over sprinkled with whitish, black, and yellowish brown : the legs and whole under side of the animal are of a bright ferruginous colour ; the tail is very short, and black at the tip. The length of the animal from the nose to the beginning of the tail is about 11 inches, that of the tail 3 inches. Its toes on the fore feet 4, hind feet 5.

13. COMMON SQUIRREL. Penn. Syn. Quadr. p. 279.
n. 206. *Sciurus vulgaris*, Linn.

A variety of the common species, being somewhat inferior in size, having a ferruginous back and grey belly, a shorter tail than the common European sort, of a fine ferruginous red, edged only with black. This animal lives in pine trees, of which the cones are its food ; it lies dormant the greater part of the winter.

14. GREATER FLYING SQUIRREL.

Severn River.

It is equal in size, if not bigger than the common squirrel; has pretty long hairs, dusky at bottom, tawny brown at the very tips only; and disposed so that the back appears wholly of that reddish brown colour; the tail is very bushy, somewhat compressed, but not pinnated (i. e. with the hairs disposed horizontally on each side of it, as for example in the common squirrel), it is brownish on the upper side with a dusky tip, of a yellowish white below; the whole underside of the animal has the same yellowish white colour. The membrane reaches from the forefeet to the hindfeet, without extending to the ears: it is found in James's Bay, about 51° north latitude.

This is perhaps Linneus's *Sciurus volans*, and the same with the flying squirrel of the Arctick parts of Europe. Mr. Brisson seems to have confounded this, and the little Virginian squirrel together, and his quotations are quite confused. Linneus's *Mus volans* certainly is a variety of the little flying squirrel, of the milder parts of North America, New York, Pennsylvania, Virginia, which is vastly different from this in size and colour.

15. A SMALL ANIMAL, called a Field Mouse.

Churchill River.

A specimen in very bad preservation, wanting legs, tail, &c which makes it impossible to de-

termine of what species it is ; its size is somewhat superior to that of a mouse, its colour dusky, mixed with tawny brown, and dirty white on the belly ; its head is broad, like that of the short-tailed field mouse, and has a dusky line in the middle between the eyes, which extends, though rather indistinctly, all along the back ; its ears are very small and roundish.

16.

This is likewise a very bad mutilated specimen, less than the common mouse, dusky and brown above, and whitish below ; its ears are pretty large and prominent.

17. FIELD MOUSE. Penn. Syn. Quadr. p. 302. n. 230. *Mus Sylvaticus*, Linn.

Two specimens ; the descriptions answer pretty well, the ears are large and round, the tail is very long and whitish below.

18. SHORT-TAILED MOUSE. Penn. Syn. Quadr. p. 305. n. 233. *Mus terrestris*, Linn. Le Campagnol de Buffon.

Mr. Pennant's admeasurements do not quite answer, but M. d'Aubenton's coincide.

19. FOETID SHREW. Penn. Syn. Quadr. p. 307. n. 235. *Sorex Araneus*, Linn.

The specimen is much blacker on the back than the European Shrew, its sides are reddish brown.

20. SHREW.

20. SHREW ; two specimens.

The colour is of a dusky grey above, and a dirty white or yellowish below ; the nose is very long and slender ; the length from the nose to the tail, in the one specimen is $2\frac{1}{4}$, in the other almost 2 inches ; the tail is about an inch and half long, thinly beset with hairs, brown above, and yellowish below. If this species had no tail, I should take it to be the minute Shrew, which the Rev. Mr. Laxman found in Siberia, and which is the *Sorex minutus*. Linn.